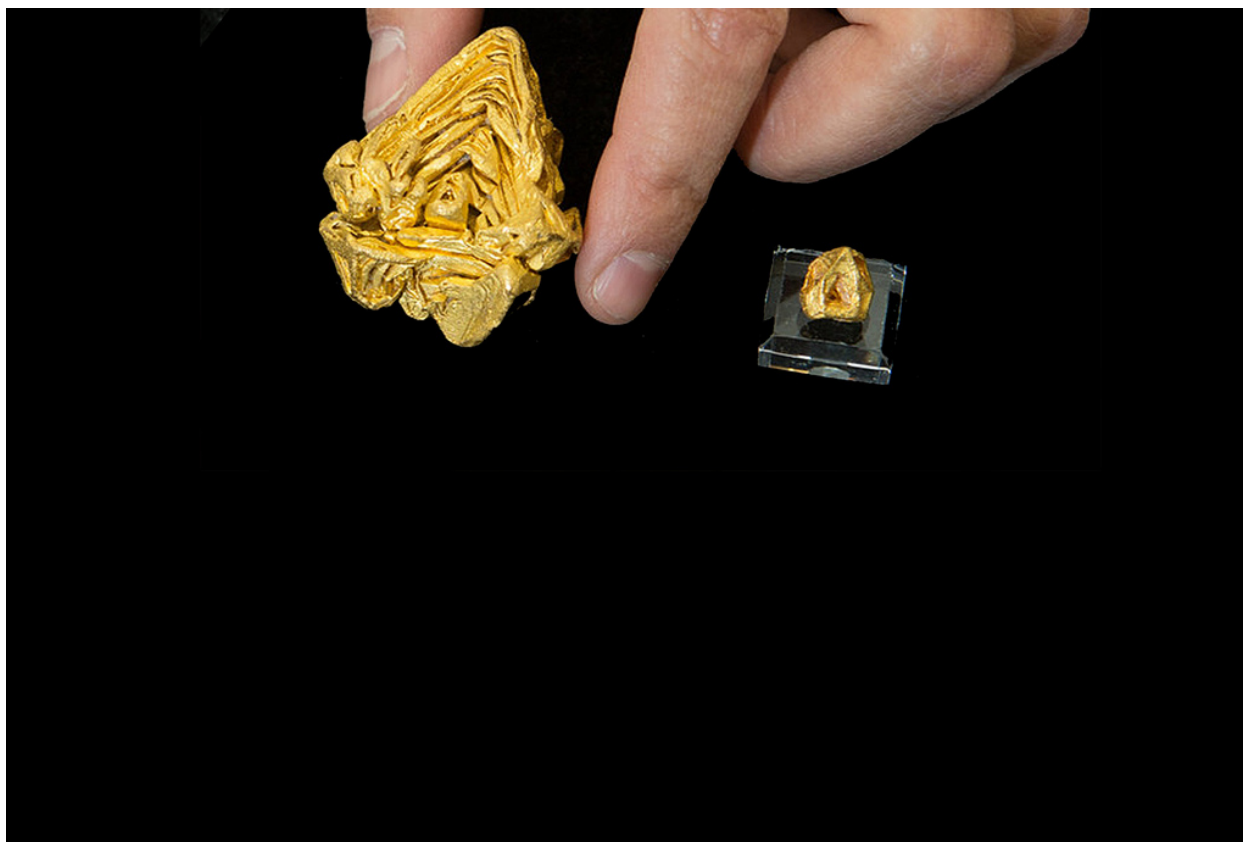


World's largest single crystal of gold verified by Los Alamos instruments

December 22, 2014



World's largest single crystal of gold verified by Los Alamos instruments

Equipment and capabilities at Los Alamos National Laboratory's Lujan Neutron Scattering Center enabled a geologist to determine that a dazzling 217.78-gram piece of gold was in fact the world's largest single-crystal specimen—a distinguishing factor that would not only drastically increase its market value but also provide a unique research opportunity.

Using the Lujan Center's HIPPO instrument, researchers probed the specimen with neutrons to gather critical information about the arrangement of atoms within the massive golden sample.

2:14

World's Largest Gold Crystal Studied at Los Alamos

HIPPO is a general-purpose powder diffractometer that measures both the crystal structure and orientation distribution of crystals (or texture) making up a poly-crystalline material from the powder pattern of the crystals.

It is the only time-of-flight neutron instrument in the world that routinely measures texture, with single crystals being the ultimate textured samples

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